AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Currently amended) A heat-shrinkable polyester film made by a process comprising at least two drawing stages in the maximum shrinkage direction,

wherein the first stage of drawing is performed at a first temperature that is from 5°C below Tg to 15°C above Tg and at a first drawing ratio of between 4.4 and 6.0; and

wherein the second stage of drawing is performed at a second temperature that is identical to or about 1 to 5°C lower than the first temperature and at a second drawing ratio of between 1.1 and 1.5,

wherein the film satisfies the following requirements (A) to (E):

(A) the heat shrinkage percentage in a maximum shrinkage direction of the film is 10% to 50%, when measured under following conditions:

the film is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 70°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(B) the heat shrinkage percentage in a maximum shrinkage direction of the film is not less than 75%, and a heat shrinkage percentage in a direction orthogonal to the maximum shrinkage direction is not more than 10%,

when measured under the following conditions:

the film is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 85°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(C) the heat shrinkage percentage difference of the film ΔX (%) represented by a following equation is 10% to 20%,

$$\Delta X = X_0 - X_{10}$$

wherein X_0 is the heat shrinkage percentage in a maximum shrinkage direction of the film and X_{10} is the heat shrinkage percentage in a maximum shrinkage direction of the film after it has experienced a 10% heat shrinkage in a maximum shrinkage direction,

wherein each of X_0 and X_{10} is measured under the following conditions:

the film to be measured is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 95°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(D) the three-dimensional surface roughness SΔa is 0.008 to 0.04;

(E) the three-dimensional surface roughness SRz is 0.6 to 1.5 μm; and

wherein the heat-shrinkable polyester film comprises a lubricant in an amount of 0.02 to 0.5 mass % of the total amount of the film.

2. (Currently amended) A heat-shrinkable polyester film made by a process comprising at least two drawing stages in the maximum shrinkage direction,

wherein the first stage of drawing is performed at a first temperature that is within the range of 5°C below Tg to 15°C above Tg and at a first drawing ratio of between 4.4 and 6.0; and

wherein the second stage of drawing is performed at a second temperature that is identical to or about 1 to about 5°C lower than the first temperature and at a second drawing ratio of between 1.1 and 1.5,

wherein the film satisfies the following requirements (A) to (C), (F), and (G):

(A) the heat shrinkage percentage in a maximum shrinkage direction of the film is 10% to 50%, when measured under following conditions:

the film is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 70°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(B) the heat shrinkage percentage in a maximum shrinkage direction of the film is not

less than 75%, and a heat shrinkage percentage in a direction orthogonal to the maximum shrinkage direction is not more than 10%,

when measured under following conditions:

the film is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 85°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(C) the heat shrinkage percentage difference of the film ΔX (%) represented by a following equation is 10% to 20%,

$$\Delta X = X_0 - X_{10}$$

Wherein X_0 is the heat shrinkage percentage in a maximum shrinkage direction of the film and X_{10} is the heat shrinkage percentage in a maximum shrinkage direction of the film after it has experienced a 10% heat shrinkage in a maximum shrinkage direction,

wherein each of X_0 and X_{10} is measured under the following conditions:

the film to be measured is cut into a square measuring 10 cm × 10 cm;

the square obtained is immersed in hot water at 95°C for 5 seconds and then withdrawn from the hot water, and subsequently is immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

(F) the light transmission at a wavelength of 380 nm is not more than 20%, and the light transmission at a wavelength of 400 nm is not more than 60%;

(G) the haze value is not more than 15%, and

wherein the heat-shrinkable polyester film comprises a lubricant in an amount of 0.02 to 0.5 mass % of the total amount of the film.

3.   (Currently amended) A film roll of a heat-shrinkable polyester film having a length of 1000 to 6000 m, ~~wherein the film is made by a process comprising at least two drawing stages in the maximum shrinkage direction,~~

~~wherein the first stage of drawing is performed at a first temperature that is within the range of 5°C below Tg to 15°C above Tg and at a first drawing ratio of between 4.4 and 6.0; and~~

~~wherein the second stage of drawing is performed at a second temperature that is~~

~~identical to or about 1 to about 5°C lower than the first temperature and at a second drawing ratio~~
~~of between 1.1 and 1.5,~~

wherein the film satisfies the following requirements (a) to (c):

(a) the average heat shrinkage percentage in a maximum shrinkage direction of the film is 10% to 50%, when measured under the following conditions:

a first plurality of samples each measuring 10 cm × 10 cm are cut from the film at a plurality of sample cut-off points, wherein

an initiation end of winding of a film of steady region giving stable film properties in a longitudinal direction is defined as a first end, and a termination end of winding thereof is defined as a second end;

a first cut-off point of the samples of the film is provided less than 2 m inside of the second end, and a final cut-off point is provided less than 2 m inside the first end;

the plurality of sample cut-off points are provided at an interval of about 100 m from the first cut-off point;

the first plurality of samples obtained are immersed in hot water at 70°C for 5 seconds and then withdrawn from the hot water, and subsequently immersed in water at 25°C for 10 seconds, and then withdrawn from the water; and

the heat shrinkage percentages in a maximum shrinkage direction of the first plurality of samples are averaged;

(b) the average heat shrinkage percentages in a maximum shrinkage direction of the film is not less than 75%, and the average heat shrinkage percentage in a direction orthogonal to the maximum shrinkage direction is not more than 10%, when measured under following conditions:

a second plurality of samples each measuring 10 cm × 10 cm are each separately cut from each cut-off point of the first plurality of samples;

the second plurality of samples obtained are immersed in hot water at 85°C for 5 seconds, and then withdrawn from the hot water, and subsequently immersed in water at 25°C for 10 seconds, and then withdrawn from the water; and

the heat shrinkage percentages in a maximum shrinkage direction of the first plurality of samples are averaged;

(c) the heat shrinkage percentage difference ΔX (%) of each pair of a plurality of sample

pairs represented by following equation is in a range of 10% to 20%,

$$\Delta X = X_0 - X_{10}$$

wherein X_0 and X_{10} are measured under the following conditions:

a third plurality of samples each measuring 10 cm × 10 cm are each separately cut from each cut-off point of the first plurality of samples;

a fourth plurality of samples each measuring 25 cm × 25 cm are each separately cut from each cut-off point of the first plurality of samples;

a fifth plurality of samples each measuring 10 cm × 10 cm are each cut from a sample from the fourth plurality of samples that have experienced a 10% heat shrinkage in a maximum shrinkage direction;

each sample from the third and fifth plurality of samples is immersed for 5 seconds in hot water at 95°C, then withdrawn from the hot water, and subsequently immersed in water at 25°C for 10 seconds, and then withdrawn from the water;

the plurality of sample pairs is formed by pairing each sample from the third plurality of samples with a sample from the fifth plurality of samples originally cut from the same cut-off point; and

X_0 and X_{10} each represents the heat shrinkage percentage in a maximum shrinkage direction of the sample from the third plurality of samples and the sample from the fifth plurality of samples within a sample pair, respectively; and

wherein said film is made by a process comprising drawing the film at a drawing ratio of not less than 4.4 and not more than 6.0 at a temperature within the range of Tg - 5°C to Tg + 15°C; then heat setting the film with a tension in the drawing direction at a ratio of not less than 1% and not more than 6% at a temperature about 1 to 5°C lower than the first drawing stage temperature; and then drawing the film at a drawing ratio that is not less than 1.1 times and not more than 1.5 times at a temperature that is the same as the heat setting temperature, or is about 1 to 5° C lower than the heat setting temperature,

wherein the heat-shrinkable polyester film comprises a lubricant in an amount of 0.02 to 0.5 mass % of the total amount of the film.

4-18. (Cancelled)